

**Distinctive Characteristics of
Methamphetamine Use**

Thomas Freese, Ph.D.
Integrated Substance Abuse Programs,
University of California, Los Angeles

VHS/DVD Location...00:49:10

**Distinctive Characteristics of
Methamphetamine Use**

- Odor of ammonia or urine due to crude MA manufacturing techniques
- MA users likely to appear in ER due to fighting or car accident, not illness due to use

**Distinctive Characteristics of
Methamphetamine Use**

- MA users more likely to present with psychiatric as opposed to physical impairment
- MA users frequently display "tweaking" behavior: stereotypic activity, repetitive and compulsive behavior

**Variables Impacting Effects and
Adverse Reactions of
Methamphetamine Use**

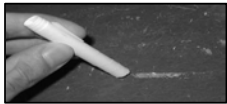
- Route of administration
- Dose
- Drug purity
- Pattern and frequency of use
- User's level of tolerance or sensitization

Route of Administration Produces Unique Medical Consequences



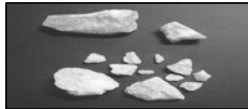
- Injection: HIV & hepatitis C, TB, abscesses, thrombosis, renal infarction, pneumonia, endocarditis

Route of Administration Produces Unique Medical Consequences



- Nasal: Sinusitis, congestion, nosebleed, septum perforation, hoarseness

Route of Administration Produces Unique Medical Consequences



- Smoking: Throat ailments, cough with black sputum

Dose

- Increased dose associated with more intense reaction
- Desired euphoric effects require escalation of dose size and frequency

Drug Purity

- Influences rate and completeness of absorption
- Methamphetamine purity generally ranges from 40-70%
- Methamphetamine is usually "cut" with lead acetate, lactose, lidocaine, procaine, caffeine, mercury, which can be harmful and pose serious health risks.

Pattern and Frequency of Use

- Temporal pattern of drug administration
- Use history
- MA users typically use on daily basis rather than binge pattern

Level of Tolerance/Sensitization

Tolerance

- Higher dose required to achieve same high
- Same dose creates diminished effect

Sensitization

- Reverse of tolerance
- Lower dose provides rapid onset of effects

Acute Physical Effects of Methamphetamine Use

Increases

- Heart rate
- Blood pressure
- Pupil size
- Respiration
- Energy
- Sensory acuity

Decreases

- Appetite
- Sleep
- Reaction time

Acute Psychological Effects of Methamphetamine Use

Increases

- Confidence
- Alertness
- Sex drive
- Mood
- Energy
- Talkativeness

Decreases

- Boredom
- Loneliness
- Timidity

Chronic Physical Effects of Methamphetamine Use

Tremor

- Weakness
- Dry mouth
- Weight loss
- Anorexia
- Cough

Sinus infection

- Burned lips
- Sore nose
- Sweating
- Oily complexion
- Headaches

Chronic Psychological Effects of Methamphetamine Use

Confusion

- Loss of Concentration
- Hallucinations
- Psychosis
- Paranoia

Fatigue

- Insomnia
- Mood swings
- Irritability
- Depression
- Anger

Psychiatric Consequences of Methamphetamine Use

- Paranoid reactions
- Hallucinations
- Psychotic reactions
- Panic disorders
- Permanent memory loss
- Depressive reactions
- Rapid addiction

**Organ Toxicity of
Methamphetamine Use**

- Central Nervous System
- Acute & chronic psychosis
 - Seizures
 - Strokes
- Cardiovascular
- Arrhythmic sudden death
 - Myocardial infarction
 - Cardio-myopathy

**Organ Toxicity of
Methamphetamine Use**

- Pulmonary
- Acute pulmonary congestion
 - Chronic obstructive lung disease
- Renal & Hepatic
- Renal failure
 - Hepatic Failure

Fetal Toxicity from MA Abuse

- Early effects include
- Fetal death
 - Impaired fetal development
- Late effects include
- Learning disability and attention deficit disorder
 - Poor social adjustment
